

U.S. Department of Transportation  
Federal Aviation Administration

Subject: INFORMATION: Additional Guidance Concerning  
Continued Operational Safety and Airworthiness Directives  
(AD) .

Date: JUL 16, 1990

From: Manager, Transport Airplane Directorate, Aircraft  
Certification Service, ANM-100

To: Managers, ANM-110/113, ANM-100S, ANM-IOOL

In May 1989, I issued a memo defining a fundamental shift in our policy on aircraft continued operational safety. The FAA policy changed from a traditional acceptance of repetitive inspections, to a new position recognizing that such inspections pose risks due to human factors considerations that are unacceptable for long term correction of critical safety problems. In order to avoid this risk, modification or replacement of parts must be accomplished to eliminate the problem. Simply stated: in critical areas, we won't allow inspection forever; parts must be replaced.

In initially implementing this policy in our AD rulemaking, we have taken a pretty hard-line approach, and the effect has been that, for most uses, repetitive inspections or operational procedures are mandated only as interim action until the necessary terminating modification is installed. However; I recently have been asked to expand this guidance to address the appropriate approach to those cases where a terminating modification does exist, but mandating it is not considered warranted.

To address this aspect, it's necessary first to look at the three major criteria that we have established, in conjunction with the Aging Aircraft Task Force, for determining those cases where a terminating modification should be mandated: .

1. The problem it corrects would have catastrophic consequences if it goes undetected; and
2. The problem must be one that could occur anywhere in the fleet (not just an isolated case); and
3. The affected area is difficult to inspect; that is:
  - a. The area is hard to reach, making detection of fatigue cracking, corrosion, etc. difficult or unreliable;
  - or
  - b. The detection method is handicapped by intervening structure or is otherwise unreliable in this case;
  - or
  - c. The sheer size of the area covered or the physical demands on the inspector make detection unreliable;

or

d. The reliability of the inspection is low, or the likelihood of a discrepancy being missed is high.

We can take the converse of these criteria and define the criteria for not mandating a terminating action as:

1. The consequences of the problem are not likely to be catastrophic; and
2. The problem is easily detectable; and
3. The inspection area is easily accessible and the inspection is easily and reliably accomplished.

I caution offices not to take too simplistic -- or liberal -- an approach in applying these criteria, however. We must interject not only a good deal of engineering judgment, but a good deal of common sense, as well, and remain focused on the real objective in this whole endeavor: not to rely solely on continual inspections or special operational procedures to ensure safety.

In order to formalize this procedure, I request that any AD sent forward in the future for my signature, which does not include a mandated terminating modification (even though one exists), contain an explanation as to why termination action was not considered. I suggest that this explanation and its relation to the criteria described above be presented in the Resume form, under the section "SPECIAL/CONTROVERSIAL ISSUES." Please provide a copy of this memo to every employee in your office who is responsible for developing and preparing AD's.

Signed by  
Leroy A. Keith